

1 estimate in its average for the “Complete the work print” task,⁶¹ the “Check for
2 and obtain any necessary permits” task, and possibly other tasks as well.

3 Moreover, as discussed below, the very small number of survey responses
4 for many tasks make it difficult, if not impossible, to determine true outliers.
5 Regardless, even if Verizon has removed some of the more obvious and egregious
6 outliers, these adjustments have not addressed, but instead have masked, the
7 fundamental design flaws inherent to Verizon’s study. Indeed, many of the
8 nonsensical results of Verizon’s study highlight defects in its survey design that
9 skew its results upward.

10 For example, Verizon VA appears to have removed the maximum estimate
11 of 1,440 minutes (24 hours) it received for the Engineering Work Order task of
12 “acquire necessary and appropriate approval,”⁶² but that does not address the
13 fundamental problems that would lead one respondent to answer *one minute* and
14 another to answer *24 hours* for the same task. And, Verizon has still assumed
15 *****BEGIN VERIZON PROPRIETARY ***** END VERIZON**
16 **PROPRIETARY***** for that task in its non-recurring cost model, still well above
17 the purported median of ten minutes. Even more troubling, the individual
18 responses for this task provided by Verizon VA in response to AT&T/WCOM 6-

⁶¹ The respondent’s estimate of 960 minutes for this task, is three times as high as the next highest survey response of 330 minutes. The minimum estimate for this task was one minute, the median was 45 minutes. Verizon Response to AT&T/WCOM 6-21.

⁶² See Verizon New York’s Response to MCI-BA-66, NYPSC Case 98-C-1357.

1 21, supposedly adjusted to remove outliers, yield a mean of 9.7 minutes and a
2 median of 5 minutes. These figures make Verizon's assumed task time appear
3 even more inflated.

4 **Q. ARE THE WORK-TIME ESTIMATES PROVIDED BY PERSONNEL IN**
5 **VERIZON'S STUDY RELIABLE?**

6 A. No. Although Verizon's Cost Panel represents survey respondents as "personnel
7 actually involved in the relevant work functions under study,"⁶³ these employees
8 provided extremely disparate estimates for the same task. These inconsistent
9 results are not limited to the more extreme examples listed above, but are in fact
10 pervasive throughout the survey. For example, for the removal of underground
11 load coils task "set up the inside of the manhole for work to be done," one
12 respondent gave the "typical" time as five minutes; another gave it as 240 minutes
13 (four hours).⁶⁴ It is implausible that two employees familiar with this task on a
14 day-to-day basis could provide such divergent estimates if they both understood
15 the question in the same manner. We believe such inconsistent results suggest
16 either that, due to the vague direction provided them, respondents were not
17 answering the same question or that some respondents were not at all familiar
18 with the tasks at issue.

⁶³ Verizon Cost Panel Direct at 311.

⁶⁴ Verizon VA's Response to AT&T 6-31.

1 **Q. DID VERIZON SURVEY A LARGE ENOUGH NUMBER OF**
2 **EMPLOYEES?**

3 A. No. Verizon surveyed what must be a small fraction of the total number of
4 employees who perform the kinds of tasks included in its non-recurring cost
5 study. In fact, Verizon relied on a very small number of responses for many of the
6 tasks. According to discovery Verizon provided in both New York and Virginia,
7 a substantial number of the task times were based on five survey responses or less,
8 with quite a few estimates being based on one response alone.⁶⁵

9 Such small samples give extreme importance to what may be outlier
10 inputs. A simple example illustrates this point. If we want to estimate the
11 average height of adult Americans and measure the height of only one or two
12 individuals, there is a nontrivial chance that we would select unusually short or
13 unusually tall people and therefore misestimate the true average. The more people
14 we include in our sample, the greater the likelihood that we will produce an
15 accurate estimate.

16 The risk of outlier estimates is always a problem in small samples. It takes
17 on a particular significance in this case because Verizon's survey was designed in
18 such a way as to increase the chances that any given respondent would provide a
19 misleading or inaccurate estimate of the task time being measured.

⁶⁵ Verizon New York's Response to ATT-BA-191 in NYPSC Case 98-C-1357; Verizon
 VA's Response to AT&T/WCOM 6-21. As we noted above, Verizon Response to
 (continued)

1 **Q. IS THE LIST OF TASKS THAT VERIZON PROVIDED TO SURVEY**
2 **RESPONDENTS LIKELY TO PROMPT EXAGGERATED TIME**
3 **ESTIMATES?**

4 A. Yes. Verizon's survey divides tasks into artificially small steps that could easily
5 have caused survey respondents to make varying interpretations of the estimates
6 being sought and almost certainly led to inflated task time estimates. For
7 example, Verizon listed 38 separate tasks for the Regional CLEC Coordination
8 Center ("RCCC") workgroup, a group whose job it is to coordinate the
9 provisioning of UNE requests.⁶⁶

10 **Q. HOW DOES THE WAY VERIZON DIVIDED ACTIVITIES INTO A**
11 **LARGE NUMBER OF DISCRETE TASKS AFFECT THE RESULTS**
12 **THAT VERIZON HAS OBTAINED?**

13 A. Verizon's survey form breaks down tasks so that the survey taker must artificially
14 consider them as one-at-a-time steps. This methodology does not capture the way
15 that technicians actually perform the tasks in question. For example, a frame
16 technician might "review" a large batch of service orders all at once and then
17 proceed to run the necessary jumpers for a number of orders. If the technician is
18 asked, as the Verizon survey does, to estimate how long it takes to do each step in
19 sequence, he or she is likely to provide a higher total estimate of the task time than

AT&T/WCOM 6-31 is misleading on this point. It indicates much larger sample sizes than would appear to be correct based on the individual responses provided.

⁶⁶ Verizon Cost Panel Direct at 307.

1 if asked the average time per jumper based on an examination of the overall
2 process.

3 The multiplicity of tasks that Verizon identified for each activity probably
4 caused survey respondents to increase their overall estimate of the time needed to
5 perform the tasks. The Verizon methodology created a classic opportunity for
6 what cognitive psychologists and behavioral economists call the “unpacking
7 effect.” This well-documented cognitive bias says that, when asked to provide
8 estimates for multiple components of an entire activity or phenomenon, the sum
9 of the estimates that individuals provide for each of the parts usually exceeds the
10 estimate that they would provide for the whole, if asked.⁶⁷ Verizon aggravated the
11 unpacking effect through both its instructions to respondents and its approach to
12 aggregating task time estimates.

13 **Q. HOW DID VERIZON AGGRAVATE THE UNPACKING EFFECT**
14 **THROUGH ITS INSTRUCTIONS TO RESPONDENTS AND ITS**
15 **APPROACH TO AGGREGATING TASK TIME ESTIMATES?**

16 A. Verizon used “not applicable” (“N/A”) (or blank) responses in a way that
17 inappropriately increased work-time estimates. It seems likely that many of the
18 estimators responded N/A if they had incorporated the time into another task or

⁶⁷ See, for example, Tversky, A., & Koehler, D. J. (1994). Support theory: A nonextensional representation of subjective probability. *Psychological Review*, 101, 547-567.

1 thought that the task was unnecessary. Indeed, Verizon's survey instructions
2 virtually forced them to do so. The instructions mandated that:

3 If you do not perform a particular activity in the
4 process of carrying out the work function, enter
5 N/A, for "Not Applicable," in lieu of a time
6 estimate. An estimate entry of "0" or connect or
7 disconnect box left blank is not acceptable. You
8 may be asked to separately provide estimates of
9 occurrences, i.e., an estimate of the percentage of
10 time a particular activity is necessary in order to
11 complete the specific work function.⁶⁸

12 Having explicitly restricted respondents from entering zero for any task,
13 Verizon then did not include N/A or blank responses in its calculation as zeros,
14 but instead excluded them from the calculation of average work-time estimates.
15 The effect of this approach is to make the sum of the average work-time estimates
16 (which is the basis for cost estimates that Verizon presents) much larger than the
17 average of the total work times that survey respondents reported for each activity.
18 For example, the sum of the average task times for Verizon's Engineering Work
19 Order activity is 809 minutes.⁶⁹ Had Verizon summed the task times that each
20 survey respondent reported for the Engineering Work Order activity and *then*

⁶⁸ Verizon Exhibit Part H, Section K, page 2 of 2 ("Instructions for Providing Estimates of Average Time").

⁶⁹ Verizon New York's Response to RLI-BA-134 in NYPSC Case 98-C-1357. Verizon VA's non-recurring cost study for this element uses a total task time of *****BEGIN VERIZON PROPRIETARY *** END VERIZON PROPRIETARY***** minutes for the Engineering Work Order activity. This decrease from the total 809 minutes seems to result from adjustments that Verizon has made to its survey data. Because we have do
(continued)

1 computed an average total activity time, the result would have been 401
2 minutes⁷⁰—just over half of the total activity time that Verizon computed by
3 averaging the work time estimates for each task without accounting for N/As,
4 blanks or zeros and then summing the averages for the individual tasks.

5 We find it very likely, given the vagueness of Verizon's instructions, the
6 artificial separation of tasks, the duplicative task descriptions and the apparent
7 frequency of blank or "not applicable" answers, that many respondents intended
8 their "not applicable" or blank answers to mean that the task was not necessary at
9 all. As this example shows, the way in which Verizon processed its survey data
10 substantially inflates the overall task time results relative to the total estimates for
11 each activity that its own survey respondents provided.

12 **Q. DO VERIZON'S SURVEY INSTRUCTIONS APPEAR TO HAVE MISLED**
13 **RESPONDENTS IN OTHER WAYS?**

14 A. Yes. Verizon applied an occurrence factor to its study's average work-times "to
15 adjust for the frequency that a given activity is performed."⁷¹ However, Verizon's
16 approach disassociates occurrence factors from the particular tasks and times.
17 Respondents were told that occurrence factors were to be dealt with separately.
18 For the average task times, they were specifically instructed that, for a given task,

not have adequate information involving the nature of those adjustments, we have used
information Verizon provided in New York for this example.

⁷⁰ The median result would have been even lower—228 minutes.

⁷¹ Verizon Cost Panel Direct at 316.

1 “your estimates [should] assume you perform it all the time.”⁷² The occurrence
2 factors were not gathered from the same people that answered the task time
3 surveys,⁷³ nor do they appear to have been gathered at the same time. The people
4 providing occurrence factors did not necessarily have the same interpretation of
5 the task in mind as the survey respondents upon which the average time was
6 based.

7 Verizon compounded this error by failing to sufficiently adjust for the
8 frequency with which tasks need to be performed. For example, only one task
9 included in the “conditioning” studies, “send tone,” was assigned an occurrence
10 factor of less than 100%.⁷⁴ Furthermore, Verizon VA assigned occurrence factors
11 of 100% to tasks that are not always necessary. For example, Verizon has
12 assigned a 100% occurrence factor⁷⁵ to the underground load coil removal task
13 “pump manhole if necessary,” even though Verizon will not always encounter
14 water in the manhole. And, because the task is described as “pump manhole *if*
15 *necessary*,” the survey respondents would not have been providing an average
16 time (taking into account occasions when pumping is not necessary), but the total

⁷² Verizon Exhibit Part H, Section K, page 2 of 2.

⁷³ Verizon Cost Panel Direct at 316; *see also* fn 16.

⁷⁴ Verizon Wholesale Non-Recurring Cost Model.

⁷⁵ Verizon has applied a 200% occurrence factor for this task, presumably assuming it requires two people 100% of the time. Verizon Wholesale Non-Recurring Cost Model.

1 time to pump, in anticipation that Verizon would adjust that time by an
2 appropriate occurrence factor.

3 **Q. DOES VERIZON'S STUDY METHODOLOGY SUFFER FROM ANY**
4 **OTHER DEFICIENCIES?**

5 A. Yes. Verizon's studies include the assumption of duplicative tasks. In addition to
6 the obvious double-counting that results from this approach, the request to
7 provide time estimates for the same task more than once, sometimes under the
8 same activity heading, may have been an additional source of confusion for the
9 survey respondents. For example, Verizon does not appear to have provided any
10 guidance to respondents as to why the survey for the Engineering Work Order
11 activity includes both the tasks "receive completion notice from Construction"
12 and "receive completion notice from Construction and final post the work order
13 on the cable plat(s)."⁷⁶ The second task seems, on its face, to completely
14 incorporate the first task. Strangely, the maximum time estimate for the first task
15 (16 hours) far exceeds the 5.5-hour maximum time estimate for the second, more
16 encompassing task.⁷⁷

⁷⁶ Verizon New York's Response to RLI-BA-134 in NYPSC Case 98-C-1357.

⁷⁷ *Id.* In both cases, however, the maximum time estimates likely reflect the same problem that we discussed with respect to the "acquire necessary and appropriate approval" task in a previous answer. That is, the high-end responses likely include the elapsed time from the end of the construction job to the receipt of the completion notice by the personnel who post work orders on the cable plat(s), not just the time that the latter personnel spent in handling the completion notice and posting the work orders.

1 **Q. DO THE SURVEYS UPON WHICH VERIZON’S NON-RECURRING**
2 **CHARGES ARE BASED RETURN EFFICIENT, LEAST-COST TASK**
3 **TIMES?**

4 A. No. Verizon asserts that its survey responses were reviewed carefully for
5 reasonableness.⁷⁸ However, the examples we have already enumerated show that
6 that review cannot have been very rigorous. Verizon’s survey methodology is so
7 seriously flawed conceptually and practically that the Commission should not use
8 the survey results as the basis for setting non-recurring costs. What is clear is that
9 Verizon’s survey could not possibly represent efficient work times. We present
10 numerous examples of inflated, inefficient task times throughout this testimony.

11 **Q. DO YOU HAVE OTHER EXAMPLES OF THE INCONSISTENCIES**
12 **THAT RESULT FROM VERIZON’S METHODOLOGY?**

13 A. Yes. To illustrate this inappropriate cost modeling, we have included a review of
14 the work activities Verizon claims are necessary for the “Two Wire New Initial
15 UNE Loop.” The process workflow we will describe occurs when the ILEC
16 reuses the existing *Loop* facilities and does not intend to collect non-recurring
17 charges for Field Installation.

18 We have taken the work activities for Verizon’s “Two Wire New Initial
19 UNE Loop”⁷⁹ and laid them out in a process workflow diagram to describe
20 Verizon’s so-called forward-looking process AT&T/WCOM NRCM-5. This

⁷⁸ Verizon Cost Panel Direct at 312-313.

⁷⁹ Verizon NRCM, Tab 1.

1 process view reflects the provisioning process beginning with the CO Frame
2 activities because these activities represent *the temporary core activities* necessary
3 to place a cross-connection between the ILEC's cable pair and the CLEC's
4 equipment.

5 Verizon starts its process with CO Frame Task #3, which is actually two
6 tasks. We have divided this task into two individual tasks because the CO Frame
7 technicians do not normally retrieve one order at a time; they typically retrieve
8 their orders in a "work package" with other orders. The work package allows a
9 normal progression of work to continue without returning to OSS for each order.
10 So the first obvious question is "on average, how many orders are retrieved in the
11 course of CO Frame task # 3?" If the average number of orders is greater than 1,
12 then Verizon should divide the *total* time it takes to retrieve the orders by the
13 average number of orders associated with this task. Verizon's NRCM and
14 supporting documentation is devoid of any such input, implying that the assumed
15 process inefficiently involves retrieval of one order at a time.

16 Mr. Walsh's experience in observing CO Frame technicians performing
17 this task in a retail environment leads him to believe this retrieval would yield on
18 average approximately 8-10 orders, and the time involved to retrieve the work
19 package is generally under 10 minutes. There may be another 15 minutes or so to
20 give the work package a cursory review. Thus, the total time for the 8-10 orders
21 would be approximately 25 minutes, or about two and a half minutes for each
22 order. The task time indicated in Verizon's NRCM appears to reflect the

1 technician work to retrieve just one order, thus undoing the efficiencies gained by
2 the multiple order work package.

3 Some percentage of the orders will require travel to a remote/un-manned
4 CO. It is not efficient to travel to a CO to perform just one task; therefore, this
5 travel time needs to be divided by the total number of tasks that CO Frame
6 technician will complete while at that Central Office. Verizon's NRCM fails to
7 provide any user-adjustable input as to the number of orders or tasks the
8 technician travels to perform and is expected to complete and appears erroneously
9 to assume that the technician performs a single task at the remote CO.

10 Based on Mr. Walsh's NYNEX experience observing CO Frame
11 technicians being dispatched to remote offices, technicians usually perform at
12 least four tasks at a remote CO. The *****VERIZON PROPRIETARY *******
13 ******* END VERIZON PROPRIETARY***** of travel for the CO Frame
14 technician appears to be the time that Verizon claims is necessary to move the
15 technician from office to office, rather than a *pro rata* share of that technician's
16 travel time, spread over the total number of tasks to be performed. Again,
17 Verizon's NRCM model lacks user adjustable inputs to reflect the variations of
18 forward-looking network.⁸⁰

⁸⁰ Verizon's travel time estimates are implausibly inconsistent. For the 2 Wire Loop UNE, Verizon claims this requirement is necessary 12% of the time, implying that 12% of the facilities are in non-staffed central offices, which seems to be reasonable. However, on the "Two Wire Hotcut - Initial" element, this percentage increase to 24%. There is no
(continued)

1 The next Verizon CO Frame task (CO Frame Task #8) in sequence has to
2 be divided into three individual tasks because it presents a decision point as to the
3 validity of the service order assignment received (workable or non-workable) and
4 the action required if the assignment is defective. Verizon has presented this task
5 (CO FRAME TASK #8) with a typical occurrence factor of 75%, but has
6 provided too little information to determine what percentage of that time results
7 from the re-verification (verification was also performed in task #3) or the
8 discovery of defective assignments.

9 The retail process that Mr. Walsh is familiar with involves the verification
10 and cross-wire placement at essentially the same time. The technician takes the
11 cross-wire in hand and goes to the office equipment location first. If the
12 equipment is available for use, as indicated on the order, he/she begins the cross-
13 wiring activity by cutting in the wires and placing the cross-wire along the
14 horizontal shelves to the cable pair location. If the assigned cable pair is
15 available, then the technician terminates the remaining end of the cross-wire. Only
16 when facilities don't agree does any further verification begin. As this discussion
17 illustrates, task 8 (verification) will generally be unnecessary and/or duplicative of
18 time included elsewhere in Verizon's non-recurring cost studies.

reason that explains a 100% increase in the number of facilities appearing in non-staffed
Central Offices for hotcuts or a 100% increase in the amount of travel time applied for
that task.

1 Verizon has portrayed a “two-step process,” with a verification activity
2 included in task #8 and a cross-wire placement activity in task #11 for a total of
3 *****VERIZON PROPRIETARY *****, END VERIZON**
4 **PROPRIETARY***** which is well overstated. The actual time for this
5 verification and cross-wire placement is closer to 2.5 minutes; this amount of time
6 was used as a “standard time increment” when Mr. Walsh was involved as an
7 engineer to calculate similar cross-wiring activities.

8 Verizon suggests that the Frame Technician contacts the RCCC and
9 obtains new assignment (CO Frame task #8) if the network service order
10 assignment is defective (*i.e.*, not workable). This step is inconsistent with Mr.
11 Walsh’s experience with provisioning retail services. Based on that experience,
12 the technician would normally place the order into a jeopardy state, which
13 electronically notifies the other departments of the CO Frame’s inability to
14 “work” the order. All processing stops until the order has been corrected, or until
15 CO Frame technician is re-notified (electronically) that the condition reported is
16 not a valid condition and to “work” the order as is. In either case, work doesn’t
17 resume again until the CO Frame technician has a new version of the order (*i.e.*, a
18 corrected order).

19 There is no reason that the jeopardy process should be different for CLEC
20 orders and no reason to request that the RCCC obtain another assignment. With
21 today’s OSS, Verizon need not notify anyone manually. Thus, there is no role for
22 RCCC in the activities discussed to this point.

1 In the center of this process flow exhibit is the “catch-all task,” CO Frame
2 task #18, which states “If a problem occurs, resolve the problem with Field
3 Installation technicians and the RCCC to insure that the CLEC can reach its end-
4 user at the time of installation.” Verizon includes *****VERIZON**
5 **PROPRIETARY ***** END VERIZON PROPRIETARY***** minutes of time
6 for this task, even for this example of Verizon re-using existing facilities, which
7 eliminates the need to dispatch a field Installation technician,.

8 **Q. WHAT NON-RECURRING ACTIVITIES DOES VERIZON CLAIM TO**
9 **BE NECESSARY FOR SUB-LOOP UNBUNDLING?**

10
11 **A.** For the “Distribution Subloop Two Wire New Initial,” Verizon assumes the same
12 activities shown in the process flow that we used in the previous example to
13 represent the field installation activities for the “Two Wire New Initial,” except
14 for the CO Frame technician. Verizon has simply removed the CO Frame’s
15 workgroup and its tasks from the sub-loop cost study, leaving the remaining
16 workgroups.

17 Some of the identified tasks of the RCCC and the Field Installation
18 technician make no sense because the work activity takes place only at the Field
19 Distribution interface. Therefore, Task #3 “Gain Access to Prem and demarcation
20 point / NID” would be unnecessary. Travel time for Task #5 is unnecessary
21 because the relevant travel is assumed in task #2. Task 6 represents costs
22 attributable to defective plant conditions; therefore, this maintenance-related cost
23 belongs in the recurring charges. Task #7 “Work with Frame, and/or RCCC if
24 necessary, for new pair assignment” is needed to reflect work on “whole loops,”

1 but certainly is unnecessary for sub-loops if there isn't any CO Frame activity.

2 The times for Tasks #8 and #13 are absurdly overstated, as we explained in
3 discussing the previous example. Task #16 is a designation at the NID which is
4 not needed for sub-loops.

5 As this summary of errors reveals, Verizon's presentation of non-recurring
6 costs for sub-loops is not a reliable source of forward-looking costs.

7 **Q. YOUR CRITIQUE OF THE VERIZON NON-RECURRING COST**
8 **STUDIES RELIES HEAVILY ON PROCESS WORK FLOWS. DOES**
9 **VERIZON ACKNOWLEDGE THE RELEVANCE OF SUCH**
10 **WORKFLOWS?**

11 A. Yes. In fact, Verizon claims that it used "process workflows" to develop the
12 surveys that were sent to the departments to determine the work times used within
13 its non-recurring cost studies.⁸¹ Additionally, the Verizon Cost Panel claims,
14 "Verizon Operations Assurance and Administration and Product Management
15 personnel reviewed the surveys to ensure that the most up-to-date work process
16 activities were included." However, when AT&T/WorldCom requested that
17 Verizon provide these process workflows, Verizon did not do so.⁸² Instead,

⁸¹ Verizon Cost Panel Direct at 311.

⁸² ATT/WorldCom asked in ATT/WCOM 4-1,b-"i. Please provide a workflow process diagram for each UNE explaining when and how these OSS are used, and the interactions of the workgroups, as they perform activity tasks related to the provisioning of UNEs." Verizon replied "i. We do not have work flow diagrams for each UNE. Rather as explained in response to 4-1a above, word descriptions of work activities were used for study purposes and to ultimately identify the necessary manual activities. Those
(continued)

1 Verizon referred back to the Verizon's Direct Exhibit H, Section D, which is the
2 "*ACTIVITY DESCRIPTIONS*" used in Verizon's NRCM. These activity
3 descriptions in no way relate directly to any "process workflows" that Verizon
4 claims were the basis for their approach to modeling non-recurring costs.

5 In lieu of the Verizon workflows, AT&T/WorldCom recreated process
6 workflows from the NRCM using the designated "*ACTIVITY DESCRIPTIONS*,"
7 as we have discussed in detail above. This recreation has demonstrated that the
8 tasks descriptions used in the Verizon non-recurring cost studies do not identify
9 discrete interactions of the OSS or the interactions of technicians to those OSS.
10 Instead, these *ACTIVITY DESCRIPTIONS* represent overlapping tasks that
11 remotely describe the functional departmental responsibilities.

12 One can easily see how employees who provided the input may have been
13 confused or did not understand proper costing principles required from TELRIC
14 methodologies. Without process workflows, it is difficult to understand how
15 employees could "identify only productive work times; eliminate[ing] those tasks
16 that are required today, but that should be unnecessary in the foreseeable future as
17 a result of process improvements or system enhancements," as the Verizon Cost
18 Panel claims.⁸³ As we have shown throughout this discussion, Verizon's survey

word descriptions are contained in Exhibit H, Section D. A generic flow diagram depicting the OSSs that are utilized to provision UNEs is attached in response to 4-1b.

⁸³ Verizon Cost Panel Direct at 300.

1 results include task times for unnecessary activities, such as field installation for
2 an order that is reusing existing facilities, as well as excessive task times, such as
3 per-request travel task times that do not reflect the efficiencies of performing
4 multiple tasks at remote COs. These inflated task times are clear evidence that
5 Verizon's managers did *not* review the survey results to ensure that the responses
6 reflected reasonably efficient times for performing tasks in Verizon's existing
7 network, much less to ensure that the responses reflected the savings achievable in
8 a forward-looking network.

9 **IV. THE COMMISSION SHOULD REJECT VERIZON'S ANALYSIS OF**
10 **COSTS FOR LINE SHARING AS EXCESSIVE AND NON-FORWARD-**
11 **LOOKING.**

12 **Q. WHAT LINE-SHARING OPTIONS HAS VERIZON PROPOSED?**

13 A. Verizon has proposed two different splitter arrangements for line sharing/line
14 splitting.⁸⁴ Under Verizon's "Option A," the competitor would purchase and
15 install the splitter in its collocation cage. Under Verizon's "Option C," the
16 competitor would purchase the splitter⁸⁵ and then transfer its ownership to
17 Verizon. For this option, either Verizon or a Verizon-approved vendor would
18 install the splitter on a relay rack located in Verizon's space and Verizon would be
19 responsible for the maintaining the splitter.

⁸⁴ Verizon Cost Panel Direct at 153-154.

1 **Q. WHAT HAS VERIZON PROPOSED IN REGARDS TO LINE**
2 **SPLITTING?**

3 A. Verizon has not made separate proposals for line splitting.⁸⁶ We have assumed
4 that Verizon's proposals for line sharing would apply equally to line splitting and
5 have addressed them in that light. There is no reason that line splitting costs
6 should be any different from those for line sharing.

7 **Q. DO VERIZON'S OPTIONS REPRESENT ALL OF THE TECHNICALLY**
8 **FEASIBLE LINE-SHARING AND LINE-SPLITTING OPTIONS?**

9 A. No. This is currently a topic of the New York DSL collaborative, which is
10 addressing, as we understand it, line-sharing and line-splitting configurations that
11 would serve as a template for service offerings throughout the Verizon region.
12 Therefore, as Ms. Murray indicated in her direct testimony, AT&T and
13 WorldCom propose to address the pricing of any additional service offering
14 options resulting from the New York collaborative once they become available.

15 **Q. HAS VERIZON PROPOSED PRICES FOR LINE-SHARING/LINE**
16 **SPLITTING OR STAND-ALONE DSL OVER FIBER?**

17 A. Unfortunately, no. Because Verizon has not yet furnished an analysis of its cost to
18 provision line-sharing arrangements or stand-alone unbundled DSL-capable loops

⁸⁵ Verizon's cost study assumes a 96-line splitter.

⁸⁶ Verizon Cost Panel Direct at 161-162.

1 over fiber-fed loops,⁸⁷ we are unable to recommend specific cost-based prices in
2 this arbitration. However, the Commission should not let Verizon or its affiliates
3 gain a competitive advantage by virtue of failing to submit costs. Therefore,
4 AT&T and WorldCom recommend that this Commission adopt a position similar
5 to that taken by several state commissions,⁸⁸ and prohibit Verizon, or any of its
6 affiliates, from providing DSL-based services over fiber facilities in Virginia until
7 Verizon has set forth terms, conditions and prices that would allow unaffiliated
8 competitors access to that capability for both stand-alone and line-shared loops
9 and parties have had an opportunity to litigate the propriety of the Verizon
10 proposals. The Commission should not allow Verizon to take advantage of any
11 current uncertainty concerning the exact nature of the company's plans for DSL
12 over fiber to provide itself or its affiliate a head start in marketing fiber-fed DSL-
13 based services in the future.

⁸⁷ Verizon asserts that "[f]iber extension of xDSL-transported services, involving the placement of either a stand-alone remote DSLAM at the RT or a DSLAM integrated in a POTS DLC RT, has not been deployed in Virginia." Verizon Cost Panel Direct at 124.

⁸⁸ See Order, *Investigation by the Department on its own motion as to the propriety of the rates and charges set for in M.D.T.E. No. 17*, D.T.E. 98-57-Phase III at 80 (Sept. 29, 2000) at 94-96; Public Service Commission of Maryland, Case No. 8842, Phase I, Order No. 76488, Oct. 6, 2000, at 15-16; and New York Public Service Commission, Case 00-C-0127, Opinion No. 00-12, issued and effective, Oct. 31, 2000, at 25-27. See also, Illinois Commerce Commission Arbitration Decision, Dockets 00-0312 and 00-0313, Aug. 17, 2000, at 31.